

What is Claimed is:

1 1. A comparator unit comprising:

2 a first comparator responsive to a first signal group,
3 the first comparator determining when a first predetermined
4 relation is present to a first reference signal group;

5 a second comparator responsive to a second signal
6 group, the second comparator determining when a second
7 predetermined relation is present to a second reference
8 signal group; and

9 a second inter-comparator conductor, the second inter-
10 comparator conductor applying an indicia of an
11 identification of the second predetermined condition to
12 first comparator, the first comparator generating an event
13 signal when the first and the second predetermined
14 conditions are identified.

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16 2. The comparator unit as recited in claim 1 wherein
17 the first and the second signal groups are the same.

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19 3. The comparator unit as recited in claim 1 wherein
20 the first and second signal groups are address signal
21 groups.

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23 4. The comparator unit as recited in claim 1 wherein
24 the first and the second signal groups are same address
25 signal group.

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2 5. The comparator unit as recited in claim 1 wherein
3 either one of the first and the second comparator can
4 generate an event signal when at least one of a touching
5 requirement and an exact requirement is satisfied by an
6 applied address signal group.

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8 6. A comparator unit comprising:

9 a first comparator and a second comparator, each
10 comparator including:

11 a comparison logic unit for comparing an input
12 signal group with a predetermined condition is identified;
13 and

14 an event signal generating unit, the comparison
15 logic unit applying a signal to the event generator unit
16 and to the event signal generating unit of the other
17 comparator when the predetermined condition is identified,
18 the event generating unit generating an event signal when
19 the signals from the two comparator logics have
20 predetermined values.

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22 7. The comparator unit as recited in claim 6 wherein
23 each comparator includes a data qualifying unit, the data
24 qualifying unit responsive to an input signal, the input
25 signal determining when a preestablished signal group has
26 certain characteristics, the data qualifying unit applying

1 a control signal to the comparison logic unit determining
2 whether generation of an event signal is enabled.

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4 8. The comparator unit as recited in claim 6 wherein
5 the input signal groups are address signal groups, the
6 predetermined conditions each reference an address signal
7 group.

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9 9. The comparator unit as recited in claim 8 wherein
10 the address signal groups are the same signal group.

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12 10. The comparator unit as recited in claim 6 wherein
13 the predetermined conditions are entered in the comparator
14 logic by control signals.

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16 11. The comparator as recited in claim 10 wherein
17 each comparator can operate independently, each comparator
18 capable of generating an event signal in response to at
19 least one of a touching requirement and an exact
20 requirement.

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22 12. The method of determining when a first and a
23 second input signal group meets at least one predetermined
24 condition, the method comprising:

25 determining in a first comparator when the first input
26 signal group meets a first predetermined condition;

1 determining in a second comparator when the second
2 input signal group meets a second predetermined condition;
3 and

4 generating an output signal when the first and the
5 second predetermined conditions are met.

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7 13. The method as recited in claim 12 wherein the
8 first and the second input signal group are different
9 address signal groups.

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11 14. The method as recited in claim 12 wherein the
12 first and the second input signal groups are the same
13 address signal group.

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15 15. The method as recited in claim 12 wherein the at
16 least one predetermined condition is selected from the
17 group consisting of a touching requirement and an exact
18 requirement.

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20 16. The method as recited in claim 12 further
21 comprising applying a signal to the comparators indicative
22 an associated signal group characteristic, the signal
23 controlling generation of the output signal.

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25 17. In a target processor, apparatus for generating a
26 trigger signal, the apparatus comprising:

1 a plurality of event signal generating units, wherein
2 at least one signal generating unit is a comparator unit,
3 the comparator unit including:

4 a first comparator and a second comparator, each
5 comparator having:

6 a comparison logic unit for comparing an
7 input signal group with a predetermined condition is
8 identified; and

9 an event signal generating unit, the
10 comparison logic unit applying a signal to the event
11 generator unit and to the event signal generating unit of
12 the other comparator when the predetermined condition is
13 identified, the event generating unit generating an event
14 signal when the signals from the two comparator logics have
15 predetermined values.

16 a trigger generation unit coupled to the plurality of
17 event signal generation units, the trigger generation unit
18 responsive to at least one preselected event signal for
19 generating an associated trigger signal, the trigger
20 generating unit generating a trigger control signal;

21

22 18. The target processor as recited in claim 17
23 wherein the comparator unit receives a program counter
24 address input signal.

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26 19. The target processor as recited in claim 17
27 wherein one comparator receives a program counter address
28 counter address input signal and the second comparator

1 received an address signal group referenced the program
2 counter address.

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4 20. The target processor as recited in claim 17
5 wherein the preselected condition is selected from the
6 group consisting of a touching requirement and an exact
7 requirement.